



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 2
290 BROADWAY
NEW YORK, NY 10007-1866

AUG 10 2011

Colonel Alfred A. Pantano, Jr.
District Commander
U.S. Army Corps of Engineers
P.O. Box 4970
Jacksonville, FL 32232-0019

Dear Colonel Pantano:

This is in regard to Public Notice No. SAJ-2011-02033 (IP-EWG) concerning an application by Mr. Mark Green on behalf of Energy Answers Arecibo LLC. The applicant proposes to construct a waste to energy and resource recovery facility within a 52.8-acre lot located within the Municipality of Arecibo, Puerto Rico. The proposed facility would use an estimated 2,100 tons of processed refuse fuel daily, generating approximately 80 megawatts of electrical power. In addition, approximately 280 tons of metallic material would be recuperated. The applicant also proposes to construct a new 2.1 million gallons per day (MGD) water intake. The water source would be the existing El Vigía Pump Station, owned by the Puerto Rico Department of Natural and Environmental Resources (DNER). Water would be conveyed to the waste to energy plant via a new, 2-mile long by 14-inch diameter ductile iron transmission line to be installed adjacent to highways PR-6681 and PR-681. The electricity to be generated at the proposed plant would be transferred to the Puerto Rico Electric Power Authority (PREPA) via a new, 0.83-mile long aerial transmission line which would require the installation of approximately twenty-nine 70-foot tall steel poles.

The proposed site for the construction of the facility is susceptible to 100-year flooding events, as determined by the Federal Emergency Management Authority (FEMA). In order to protect the facility from flooding, the applicant proposes to raise the site from its current elevation to 6.3 meters above mean sea level, which would result in the filling of approximately 2.42 acres of wetlands and other waters of the U.S. However, this estimated impact area is based on the applicant's jurisdictional determination, which has not been verified by the Corps of Engineers. These impacts consist mainly of the filling of a central canal and additional drainage channels that traverse the property. The channels were originally constructed as part of a previously existing industrial facility at the site and were intended as part of the property's stormwater management system. The applicant proposes to manage storm water flows by constructing two new retention ponds with an interconnecting ditch. The new system would discharge into the Rio Grande de Arecibo, maintaining the current storm water flow pattern. According to the applicant, the western portion of the development site (26.1 acres) would be set aside for conservation and floodway management. However, floodway management would require that the floodplain between the development site and Rio Grande de Arecibo be cleared of brush, small trees and bamboo stands, and graded to a lower elevation to increase its hydraulic conveyance capacity. Once the site preparation is completed, the area would be planted and maintained with grasses and small shrubs.

In order to offset the loss of wetlands which would result from the project, the applicant proposes to enhance approximately 7.5 acres of wetlands on the southern border of the Caño Tiburones Natural Reserve. This would be achieved by removing trash and debris from the mitigation area, and the planting of woody wetland vegetation and native herbaceous species. Existing dirt roads would also be upgraded to facilitate access. The mitigation proposal is being coordinated with local DNER personnel.

After evaluating the information available for this project, the U.S. Environmental Protection Agency (EPA) believes that the project, as described, does not fully comply with the Clean Water Act Section 404(b)(1) guidelines. These guidelines state that "no discharge of dredged or fill material shall be permitted if there is a practicable alternative to the proposed discharge which would have less adverse impact on the aquatic environment." In the case of non-water dependent activities, such as the proposed project, such alternatives "are presumed to be available, unless clearly demonstrated otherwise". EPA believes that the areas which would be impacted by the project include aquatic resources of national importance as described in the revised Clean Water Act Section 404(q) Memorandum of Agreement (MOA) signed by our agencies. Wetlands perform several functions, including storm buffering, nutrient export, sediment filtration, flood water storage, and wildlife habitat. While we acknowledge that at least part of the wetlands that would be eliminated by the project arose as a result of the abandonment of drainage channels constructed by a previous landowner, we believe that these areas, in conjunction with those naturally occurring at the site filter sediments and other contaminants from nearby roadways and other human activities which may otherwise reach the Rio Grande de Arecibo. This river is currently listed under Section 303(d) of the Clean Water Act as an impaired water body in Puerto Rico, and the proposed action may result in additional degradation of its waters. In addition, the wetlands in the area also provide floodwater storage capacity during storm events. Moreover, the applicant also plans to conduct floodplain management work on a remnant of the property adjacent to the Rio Grande de Arecibo. A review of the National Wetlands Inventory (NWI) maps for the area reveals that much of the property includes diverse wetland types. Since the Corps of Engineers has not verified the applicant's jurisdictional determination (JD) for the project, we are concerned that impacts at the proposed "preservation" parcel may have not been included in the public notice. The wetlands within the property, previously created or not, are part of the Rio Grande de Arecibo floodplain. In addition, the naturally occurring wetlands may have historically been part of the Caño Tiburones freshwater swamp system, the largest such system in Puerto Rico. In our opinion, suitable alternatives might be available which would allow for the achievement of the basic project purpose with lesser or no impacts to aquatic resources. Furthermore, EPA believes that if alternatives with lesser environmental impacts are not found within the Municipality of Arecibo, the applicant should consider the widening of the stated overall project purpose to include other areas in Puerto Rico with reasonable access to PREPA facilities in order to allow an efficient delivery of the generated electrical power.

The public notice states that the applicant considered the construction of an earthen dike system for flood control around the proposed site, as well as the incorporation of at least some of the existing channels within the property as part of the site's storm water management plan as an alternative to the filling of the entire parcel. However, no discussion as to why such options were discarded or if any other options were considered was provided. While EPA understands that the selected option might be the applicant's preferred alternative in terms of long term maintenance costs and stability, we believe that if the alternatives analysis concludes that the proposed site is the only viable alternative, additional impact avoidance or minimization attempts, such as the incorporation of the existing channels as part of the facility's storm water management system, require further consideration.

The applicant has presented a conceptual plan to mitigate for the loss of wetlands by enhancing 7.5 acres of wetlands adjacent to DNER's Caño Tiburones Natural Reserve. While the idea has been developed in consultation with DNER personnel, the proposal appears to be largely conceptual at this stage. In general, EPA believes that wetland enhancement areas might not constitute adequate mitigation for the loss of wetland area unless the benefits derived from such enhancements surpass the values and functions of the lost area. In addition, EPA is concerned regarding the proposed "conservation area" which is included in the Compensatory Mitigation Section of the public notice. As per the available information, this area would be subject to proposed floodway management measures which may provide conditions suitable for the establishment of wetland species. However, the area would also be actively maintained to limit the vegetation that can become established in it. This management may preclude any low areas from becoming fully functional wetlands and thus should not be used to compensate for wetland losses. As we previously mentioned, since the JD has not been verified by the Corps, it is difficult to ascertain whether the floodplain management measures proposed may result in additional impacts to jurisdictional areas, as suggested by the NWI maps of the site. Based on these concerns, EPA stresses the need for the applicant to revise the alternatives analysis for the project and determine whether further impact minimization efforts are feasible. If such alternatives are identified, the applicant must incorporate any changes to the project plan and then revisit the proposed mitigation plan as appropriate, providing additional details, which were not included in the current public notice, as required.

Other areas of concern are the proposed water supply and electrical transmission lines. The proposed water intake would remove 2.1 MGD of brackish water pumped from Caño Tiburones into a canal that leads into Arecibo Bay. While the canal currently receives approximately 100 MGD, no mention of the current conditions at the canal is made, or whether the reduction in flow may result in changes to the site's condition. The water would be transferred to the facility by a pipeline that would be installed along the right-of-way for PR- 681 and PR-6681. EPA is concerned regarding the installation of the proposed pipeline, since additional impacts to aquatic resources may occur during pipeline installation and project staging. The applicant should provide a description of the current conditions along the pipeline route, the proposed installation methodology and the location of staging areas. Similar information must be provided for the installation of the poles that would carry the power transmission line into the PREPA facilities, including a description of the area, the location of the poles, and the construction methodology, and the location of any staging areas, if they are required.

EPA is also concerned regarding water use at the facility for cooling and boiler makeup purposes. While the applicant has provided information regarding the need for approximately 2.1 MGD, no mention of a water discharge is made. Due to the nature of the proposed activities, any water discharge leaving the proposed facility may be subject to permit requirements under the National Pollution Discharge Elimination System (NPDES). We advise the applicant to contact EPA regarding such requirements. Other issues that we believe should be addressed as part of the cumulative impacts review are the impacts of emissions that will be generated as part of the increased truck traffic, the impact of expected commercial growth on the area on the existing infrastructure, and any impacts that the reduction of waste due to recycling and composting programs may have on the volume of waste required to operate the waste to energy facility.

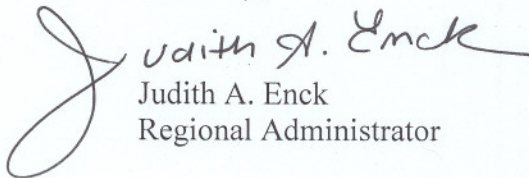
Our final comment on the proposed project is its location in relation to the right-of-way for the natural gas pipeline proposed by PREPA (commonly referred to as "Via Verde") to deliver an alternate fuel source from southern Puerto Rico to three power generating facilities located on the north coast of the island. While evaluating this public notice, it appeared that "Via Verde" may traverse a portion of the proposed project site. While we understand that the right-of-way for "Via Verde" is still subject to

variations in order to avoid or minimize impacts to jurisdictional areas, we urge the applicant to contact PREPA in order to obtain the latest information regarding the gas pipeline so that conflicts, if any, can be resolved in a timely manner.

In summary, we believe that the applicant has failed to comply with the Clean Water Act Section 404(b)(1) guidelines, and that the proposed discharges of fill material would have a substantial and unacceptable impact on aquatic resources of national importance. This opinion resulted from the consideration of possible alternatives that may result in fewer impacts to the aquatic environment. The wetlands to be impacted by the project, as currently presented, serve as a buffer in removing non-point source pollution and sediments that might otherwise reach a major water body in Puerto Rico. In addition, the compensatory mitigation proposed appears to be largely conceptual and may not adequately compensate for the impacts to waters of the U.S. that would result from the project. We therefore recommend that no DA permit be issued for this project until these issues are addressed. This letter is intended to satisfy the requirements of both Part IV 3(a) and 3(b) of the Section 404(q) MOA.

If you have any questions regarding this matter, please contact me at (212) 637-5000, or have your staff contact Ms. Tere Rodríguez, Chief of the Multimedia Permits and Compliance Branch, at (787) 977-5864.

Sincerely,



Judith A. Enck
Regional Administrator

cc: USFWS, Boquerón, PR
NMFS, St. Petersburg, FL
PRDNER, San Juan, PR
PRPB, San Juan, PR